WILLIAM T. PECORA AWARD

Upper Atmosphere Research Satellite (UARS) Team

In recognition of ground-breaking scientific and technical advances to enhance our understanding the Earth's middle and upper atmosphere

The Upper Atmosphere Research Satellite (UARS) is still operational more than 11 years after its launch in September 1991. It continues to make major advances in our understanding of the Earth's middle and upper atmosphere and the response of these atmospheric regions to natural and anthropogenic forcings. This satellite has achieved remarkable success in providing information on the coupled energy input, chemistry, and dynamics that control the structure and composition of these sensitive regions of the atmosphere. The continued operation of a majority of the ten UARS instruments, many years after their design life, stands as a remarkable accomplishment of the UARS Team. The scientific understanding generated by the UARS data sets and the numerous high-quality publications of the team members and guest investigators have exceeded all expectations.

The combined success of the 10 UARS instruments represents unprecedented achievement in the remote sensing of the Earth's atmosphere. The observational approach pioneered by the satellite and its associated team of investigators serves as a template for satellite mission design. In addition to providing a richness of scientific understanding, the global images from UARS have captured public imagination and interest in the frailty of the Earth's atmosphere in response to human perturbations. In particular, UARS observations and their interpretation have factored heavily in the last decade of international Scientific Assessments of Ozone Depletion conducted under the auspices of the United Nations Montreal Protocol.

The UARS instrument and theory teams and guest investigators have made numerous and significant scientific discoveries in every measurement area targeted for the satellite instruments. These range from a global view of the role of chlorine-containing atmospheric constituents in degrading the Earth's stratospheric ozone layer, to the first complete global picture of the atmospheric tide through measurements of stratospheric and mesospheric winds, to the longest time series of calibrated solar ultraviolet spectral irradiances extending over a complete solar cycle. The UARS instrument investigators have been ingenious not only in instrument design, but also in the derivation of many new scientific products beyond those that were originally envisioned.

In recognition of their accomplishments and dedication, the Department of the Interior and the National Aeronautics and Space Administration takes great pleasure in presenting the 2002 William T. Pecora Group Award to the UARS Team.

Administrator
National Aeronautics and Space Administration

Secretary of the Interior